

AMENDED CLAIM SET:

1. (Currently Amended) Organic-inorganic hybrid polymer materials with compositional gradient composed of an organic polymer component and a metal oxide component which are covalently bonded to each other, ~~characterized in that~~ wherein concentration of the organic polymer component, or of the metal oxide component, is increased or decreased in the direction of thickness of the material.

2. (Currently Amended) Organic-inorganic hybrid polymer materials with compositional gradient composed of an organic polymer component and a metal oxide component which are covalently bonded to each other, ~~characterized in that~~ wherein concentration of the organic polymer component is increased or decreased in the direction of thickness of the material.

3. (Currently Amended) Organic-inorganic hybrid polymer materials with compositional gradient composed of an organic polymer component and a metal oxide component which are covalently bonded to each other, ~~characterized in that~~ wherein concentration of the metal oxide component is increased or decreased in the direction of thickness of the material.

4. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein the organic polymer has at least one functional group selected from the group composed of an alkoxymetal group, a hydroxyl group, an amino group, and a carboxyl group.

5. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein the organic polymer has at least one alkoxymetal group as a functional group.

6. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein the organic polymer has a number average molecular weight of from 2000 to 10000 measured by GPC.

7. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein the organic polymer comprises a thermoplastic resin as a main chain.

8. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3,

wherein the organic polymer comprises polycarbonate or polyarylate as a main chain.

9. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein the metal oxide is obtained by hydrolyzing and polycondensing a metal alkoxide compound or the low condensate thereof.

10. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein a metal element of the metal oxide component is at least one selected from the group composed of Si, Ti, and Zr.

11. (Original) The organic-inorganic hybrid polymer materials with compositional gradient according to any one of claims 1 to 3, wherein a metal element of the metal oxide component is Si.